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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/277,482	03/26/1999	DEAN A. KLEIN	MPATENT.052A	3615

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EXAMINER
SONG, HOSUK

ART UNIT	PAPER NUMBER
2131	9

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/277,482	Applicant(s) KLEIN, DEAN A.	
	Examiner Hosuk Song	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover she t with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2,4-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2,4-12,18-19 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Pond et al.(US 4,864,616) in view of Microsoft Press Computer Dictionary.

Claims 1,7: Pond disclose a digital data storage device in (col.3,lines 5-7). Pond disclose a logic circuit configured to receive digital data from a host processor and to forward the digital to digital data storage device in an encrypted form in (col.3,lines 5-18). Pond disclose a key accessed by logic circuit to define at least in part an encryption process,wherein the key is derived at least in part from identification code in (fig.1). Note that ID's such as machine ID,config ID,primary ID are used to generate various keys, which are input to a key stream generator for generating key streams(col.5,lines 44-59;col.3,lines 19-23). Col.5,lines 35-44 clearly discloses data encrypted with the key streams becomes a protected file. Which is a storage means for storing the protected file. Pond discloses in (col.2,lines 59-68) that security system is a distinct element in which it may include circuitry that is installed in an expansion slot of the PC. The examiner asserts that since the security system taught in Pond suggest that

system is a distinct element, it can perform encryption and transmit its data with/without intervention by a host processor. Pond does not specifically discloses a non-volatile memory location in or connected to logic circuit which stores an identification code. Pond does disclose storing ID code in a secure memory in (col.5,lines 35-43;col.3,lines 19-21). Microsoft dictionary discloses that secure memory such as ROM is used to store code or data permanently. Motivation to use non-volatile memory such as ROM to store the master ID,machine ID,config ID would have been ability to prevent loss of IDs during power failure.

Claim 2: Pond disclose wherein the identification code is assigned to and associated with computing apparatus in (fig.1 and col.3,lines 19-35).

Claim 4: Pond disclose wherein the logic circuit is configured to verifiy the key without intervention by host processor in (col.7,lines 23-38).

Claim 5: Pond disclose logic circuit selectively disabling logic circuit from encrypting the digital data in (col.6,28-34).

Claim 6: Pond disclose deriving a key additionally comprises for deriving at least in part from user input to computer system in (col.5,lines 28-30 and fig.1).

Claim 8: Pond disclose plurality of data storage media drives includes one or more hard disk drives and one or more floppy disk drives in (col.3,lines 5-18). It is well known in the art to include a hard drives and floppy drive in a personal computer.

Claim 9: Pond discloses various memory locations for storing keys and key streams in (fig.1). Wherein key is accessed by logic circuit to encrypt digital data. Pond does not specifically discloses a non-volatile memory location in or connected to logic circuit which stores an identification code. Pond does disclose storing ID code in a secure memory in (col.5,lines 35-

43;col.3,lines 19-21). Microsoft dictionary discloses that secure memory such as ROM is used to store code or data permanently. Motivation to use non-volatile memory such as ROM to store the master ID,machine ID,config ID would have been ability to prevent loss of IDs during power failure.

Claim 10: Pond disclose identification code is assigned to and associated specifically with computer in (col.3,lines 5-18).

Claim 11: Pond disclose a digital data storage device in (col.3,lines 5-7). Pond disclose a logic circuit configured to receive digital data from a host processor and to forward the digital to digital data storage device in an encrypted form in (col.3,lines 5-18). Pond disclose a key accessed by logic circuit to define at least in part an encryption process,wherein the key is derived at least in part from identification code in (fig.1). Note that ID's such as machine ID,config ID,primary ID are used to generate various keys, which are input to a key stream generator for generating key streams(col.5,lines 44-59;col.3,lines 19-23). Col.5,lines 35-44 clearly discloses data encrypted with the key streams becomes a protected file. Which is a storage means for storing the protected file. Pond discloses in (col.2,lines 59-68) that security system is a distinct element in which it may include circuitry that is installed in an expansion slot of the PC. The examiner asserts that since the security system taught in Pond suggest that system is a distinct element, it can perform encryption and transmit its data with/without intervention by a host processor. Pond does not specifically discloses a non-volatile memory location in or connected to logic circuit which stores an identification code. Pond does disclose storing ID code in a secure memory in (col.5,lines 35-43;col.3,lines 19-21). Microsoft dictionary discloses that secure memory such as ROM is used to store code or data permanently.

Motivation to use non-volatile memory such as ROM to store the master ID,machine ID,config ID would have been ability to prevent loss of IDs during power failure.

Claim 12: Pond disclose multiple data storage devices,wherein configuration register contains information enabling data encryption of data routed to a first one of at least two data storage devices, and configuration register contains information disabling data encryption data routed to a second one of at least two data storage devices in (col.6,lines 25-34).

Claims 18,19: Pond does not disclose logic circuit is integrated in a bus to bus bridge. The examiner takes Official notice that bus to bus bridge is well known in the art. One of ordinary skill in the art would have been motivated to use integrated bus to bus bridge in order to delay transaction processes I/O read/write,configuration read/write, and memory read transactions. Further, it converts bus transactions between primary bus and secondary bus. Thus minimizing an error rate.

3. Claims 13-15,21-22 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Pond et al.(US 4,864,616).

In claims 13,14, Pond disclose a first memory location storing an identification code in (col.3,lines 19-21). Pond discloses in (col.2,lines 59-68) that security system is a distinct element in which it may include circuitry that is installed in an expansion slot of the PC. The examiner asserts that since the security system taught in Pond suggest that system is a distinct element, it can perform encryption and transmit its data with/without intervention by a host processor. Pond does not disclose a second memory location and an encryption engine to receive ID code from first memory and to store a key for use by encryption engine. Official notice is taken that second memory location and an encryption engine to receive ID code from

first memory and to store a key for use by encryption engine is well known in the art. For example, crypto smart card is widely used as a location for second memory to store and retrieve and perform encryption function in a network. One of ordinary skill in the art would have been motivated to use second memory location to keep its data secure and since it is portable data can be removed and carried conveniently thus making hackers more difficult to defeat the system.

In claim 15, the examiner takes Official notice that use of a serial data bus is well known. One of ordinary skill in the art would have been motivated to use serial data bus in order to provide a reliable effective method of transmit input data to the site of processing.

Claims 21,22: Pond does not disclose logic circuit is integrated in a bus to bus bridge. The examiner takes Official notice that bus to bus bridge is well known in the art. One of ordinary skill in the art would have been motivated to use integrated bus to bus bridge in order to delay transaction processes I/O read/write,configuration read/write, and memory read transactions. Further, it converts bus transactions between primary bus and secondary bus. Thus minimizing an error rate.

Claim Rejections - 35 USC § 102

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 16-17 remain rejected under 35 U.S.C. 102(b) as being anticipated by Pond et al.(US 4,864,616).

Claim 16: Pond discloses host computing logic and means for storing an identification code associated with host computing logic in (fig.1 and col.5,lines 20-43). Pond disclose deriving a key for data encryption at least in part from identification code in (col.5,lines 44-59,60-61;col.3,lines 19-23). Pond discloses in (col.2,lines 59-68) that security system is a distinct element in which it may include circuitry that is installed in an expansion slot of the PC. Since the security system taught in Pond suggest that system is a distinct element, it can perform encryption and transmit its data with/without intervention by a host processor

Claim 17: Pond disclose deriving a key additionally comprises for deriving at least in part from user input to computer system in (col.5,lines 28-30 and fig.1).

Response to Amendment

5. Claim 3 has been cancelled. Applicant has amended claims 1,7,11,13,16 and added new claims 18-22. Examiner have addressed amended claims in claims rejection above.

Applicant has argued that Pond reference does not teach security system is configured to encrypt data and forward the data to a storage device without intervention of the host processor. In response: examiner disagree. Pond discloses in (col.2,lines 59-68) that security system is a distinct element in which it may include circuitry that is installed in an expansion slot of the PC. Meaning it can be installed in an expansion slot of the PC or it can be an independent system. The examiner asserts that since the security system taught in Pond suggest that system is a distinct element, it can perform encryption and transmit its data with/without intervention by a host processor. Applicant has argued that MPCD does not teach the limitation above. In response: Pond disclose all the limitations except use of secure memory to store ID

code. MPCD was cited in support of what is well known in the art. Examiner have provided sufficient motivation in combining Pond with MPCD.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hosuk Song whose telephone number is 703-305-0042. The examiner can normally be reached on Tue-Fri from 6:00 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

HSS

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100